

IN THE CLAIMS

The following is a complete listing of the claims, and replaces all earlier versions and listings.

1. (Currently Amended) A decoding apparatus comprising:

    table storage means for storing, in correspondence with M types of variable-length code tables, M tables holding minimum code words or maximum code words of N classes of variable-length code words constructing a variable-length code table;

    table selection means for selecting a table from the M tables in said table storage means;

    N comparison means for comparing input coded data with the minimum code words or maximum code words outputted from the table selected by said table selection means;

    class discrimination means for obtaining a class number corresponding to an initial code word of the input coded data based on results of comparison by said N comparison means;

    code length conversion means for converting the class number obtained by said class discrimination means into a code length; and

    address generation means for generating an address to access a memory holding decoded data from [[said]] the class number and [[said]] the code length outputted from said code length conversion means.

2. (Original) The decoding apparatus according to claim 1, wherein said table selection means selects the table based on at least a coding method of the input coded data, a component number and data indicating a variable-length code table used upon coding.

3. (Original) The decoding apparatus according to claim 1, wherein said class discrimination means selects the results of comparison by said N comparison means based on a number of the table selected by said table selection means, and determines a minimum class number among class numbers corresponding to said comparison means of the selected results of comparison, as the class number.

4. (Original) The decoding apparatus according to claim 1, wherein said code-length conversion means converts the class number into the code length based on the class number obtained by said class discrimination means and a number of the table selected by said table selection means.

5. (Original) The decoding apparatus according to claim 1, wherein the M tables include a RAM, a ROM or a table constructed with flip-flops.

6. (Original) The decoding apparatus according to claim 1, wherein the class number N stored in each of the M tables is set to an arbitrary value.

7. (Original) The decoding apparatus according to claim 1, wherein the maximum code words or minimum code words stored in the M tables correspond to the JPEG coding method and the MPEG coding method.

8. (Currently Amended) A decoding method for inputting and decoding variable-length coded data, comprising:

a table selection step, of, in correspondence with M types of variable-length code tables, selecting one table corresponding to the variable-length coded data from M tables holding minimum code words or maximum code words of classes of variable-length code words constructing a variable-length code table;

a comparison step, of comparing input coded data with the minimum code words or maximum code words outputted from the table selected [[at]] in said table selection step by using N comparators;

a class discrimination step, of obtaining a class number corresponding to an initial code word of the input coded data based on results of comparison by the N comparators;

a code length conversion step, of converting the class number into a code length; and

a step, of accessing a memory holding decoded data, from the class number and the code length obtained [[at]] in said code length conversion step, and obtaining decoded data.

9. (Currently Amended) The decoding method according to claim 8, wherein [[at]] in said class discrimination step, the results of comparison by the N comparators is selected based on a number of the table selected [[at]] in said table selection step, and a minimum class number among class numbers corresponding to comparators of the selected results of comparison is determined as the class number.

10. (Currently Amended) The decoding method according to claim 8, wherein [[at]] in said code-length conversion step, the class number is converted into the code length based on the class number obtained [[at]] in said class discrimination step and the number of the table selected [[at]] in said table selection step.

11. (Currently Amended) The decoding method according to claim 8, wherein [[at]] in said table selection step, the table is selected based on at least a coding method of the input coded data, a component number and data indicating a variable-length code table used upon coding.

12. (Original) The decoding method according to claim 8, wherein the M tables include a RAM, a ROM or a table constructed with flip-flops.

13. (Currently Amended) The decoding method according to claim 8, wherein the class number N stored in each of the M tables is set to an arbitrary [[vale]] value.

14. (Original) The decoding method according to claim 8, wherein the maximum code words or minimum code words stored in the M tables correspond to the JPEG coding method and the MPEG coding method.

15. (Currently Amended) A computer-readable storage medium holding a program for executing a decoding method for inputting and decoding variable-length coded data, having:

a table selection process module ~~for, adapted to,~~ in correspondence with M types of variable-length code tables, ~~selecting select~~ one table corresponding to the variable-length coded data from M tables holding minimum code words or maximum code words of classes of variable-length code words constructing a variable-length code table;

a comparison process module, ~~adapted to compare for comparing~~ input coded data with the minimum code words or maximum code words outputted from the table selected at said table selection process module;

a class discrimination module, ~~adapted to obtain for obtaining~~ a class number corresponding to an initial code word of the input coded data based on results of comparison at said comparison module;

a code length conversion module, ~~adapted to convert for converting~~ the class number into a code length; and

a module, ~~adapted to access for accessing~~ a memory holding decoded data, from the class number and the code length obtained at said code length conversion module, and ~~obtaining obtain~~ decoded data.

16. (Original) The storage medium according to claim 15, wherein at said table selection module, the table is selected based on at least a coding method of the input code data, a component number and data indicating a variable-length code table used upon coding.

17. (Original) The storage medium according to claim 15, wherein the M tables include a RAM, a ROM or a table constructed with flip-flops.

18. (Currently Amended) The storage medium according to claim 15, wherein the class number N stored in [[said]] the respective M tables is set to an arbitrary [[vale]] value for the respective tables.

19. (Currently Amended) The storage medium according to claim 15, wherein the maximum code words or minimum code words stored in [[said]] the M tables correspond to the JPEG coding method and the MPEG coding method.

20. (Canceled)